



TETRA TECH EM, INC.

I. 1
7-12-04

EPA Region 5 Records Ctr.



205292

July 12, 2004

Mr. Kevin Turner
On-Scene Coordinator
Emergency Response Branch
U.S. Environmental Protection Agency Region 5
c/o Crab Orchard National Wildlife Refuge
8588 Route 148
Marion, IL 62959

Subject: Letter Report
RRG/Clayton Chemical Removal Action Site
Sauget, St. Clair County, Illinois
Technical Direction Document No. S05-0307-011
Tetra Tech Contract No. 68-W-00-129

Dear Mr. Turner:

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) is submitting the enclosed letter report on the RRG/Clayton Chemical removal action site in Sauget, St. Clair County, Illinois. If you have any questions or comments regarding the report or need additional copies, please contact me at (314) 892-6322, extension 25, or Thomas Kouris at (312) 946-6431.

Sincerely,

Thomas Binz
Tetra Tech START Project Manager

Enclosure

cc: Lorraine Kosik, U.S. EPA START Project Officer
Thomas Kouris, Tetra Tech START Program Manager

LETTER REPORT
RRG/CLAYTON CHEMICAL REMOVAL ACTION SITE
SAUGET, ST. CLAIR COUNTY, ILLINOIS

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5 Emergency Response Branch
c/o Crab Orchard National Wildlife Refuge
8588 Route 148
Marion, IL 62959

TDD No.:	S05-0307-011
Date Prepared:	July 7, 2004
Contract No.:	68-W-00-129
Prepared by:	Tetra Tech EM Inc.
START Project Manager:	Thomas Binz
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1.0 INTRODUCTION

The Tetra Tech EM Inc. Superfund Technical Assessment and Response Team (START) has prepared this letter report in accordance with the requirements of Technical Direction Document (TDD) No. S05-0307-011, which the U.S. Environmental Protection Agency (U.S. EPA) assigned to START. The scope of this TDD was to provide oversight at the RRG/Clayton Chemical removal action site in Sauget, St. Clair County, Illinois, during liquid waste removal. Specifically, START was tasked to conduct monitoring activities at the site and prepare this letter report.

Section 2.0 of this report provides background information on the site. Section 3.0 details the removal activities conducted by the removal contractor, and Section 4.0 summarizes waste disposal information. Section 5.0 summarizes the contents of this report and presents conclusions drawn from observations made during on-site monitoring activities. In addition, Appendix A contains a photographic log of site activities, Appendix B contains a copy of START's field logbook notes, and Appendix C contains a copy of the manifest tracking log.

2.0 SITE BACKGROUND

The RRG/Clayton Chemical site is located at 1 Mobile Avenue in Sauget, St. Clair County, Illinois. The site occupies 7 acres in a highly industrialized area (see Appendix A). Prior to 1961, the property was owned by GM&O Railroad, which operated a maintenance facility for railroad parts and equipment at the site. In 1961, Clayton Chemical Company (Clayton Chemical) leased the property to operate a waste oil and solvent recycling and recovery business there. In 1981, Clayton Chemical acquired the property from the Village of Sauget and continued recycling and recovery operations. In November 1996, Clayton Chemical ceased operations and was bought out by the Resource Recovery Group (RRG), which continued to operate the facility as a waste oil and solvent recycling and recovery business. After the Illinois Environmental Protection Agency (IEPA) denied RRG a Resource Conservation and Recovery Act (RCRA) Part B permit all site operations ceased. Since that time the site has been abandoned, with large amounts of hazardous liquid wastes left stored in aboveground storage tanks (AST), piping, drums, and other vessels.

3.0 REMOVAL ACTIVITIES

This section discusses the liquid waste removal activities conducted at the RRG/Clayton Chemical site from August 7, 2003, through May 17, 2004. The activities included (1) mobilization and site setup, (2) a liquid waste inventory and profiling, (3) liquid waste removal, (4) AST decontamination; and (5) demobilization.

3.1 MOBILIZATION AND SITE SETUP

On August 6, 2003, a preconstruction meeting and tour were conducted at the site by O'Brien & Gere Engineering, Inc. (OBG). Representatives of U.S. EPA; IEPA; START; and the removal contractor, Clean Harbors Environmental Services, Inc. (CHESI), were present for the meeting. During the meeting, the roles and responsibilities of all parties involved were discussed. OBG was to manage the removal, perform oversight on behalf of the potentially responsible party (PRP) for the site, and provide U.S. EPA with monthly progress reports and a final report within 60 days after completion of the project. CHESI was to perform most activities associated with the removal, including sampling, procurement of analytical services, and waste transport and disposal. START was to monitor site activities on behalf of U.S. EPA. No representatives of the RRG/Clayton Chemical Site Liquids Group were present at the meeting. This group includes the present site owner, Dennis Bollinger, as well as waste generators that submitted materials to the facility during its operation.

On August 7, 2003, CHESI mobilized to the site. A site office trailer was set up along with a decontamination trailer. A work zone, contamination reduction zone, and decontamination area were established, and the CHESI crew began to inventory and sample ASTs on site.

3.2 LIQUID WASTE INVENTORY AND PROFILING

The goal of the inventory and profiling phase of the removal action was to provide estimates of all liquid wastes still stored at the site and collect representative samples for disposal characterization purposes. For this removal, "liquid wastes" were defined as both nonhazardous wastes and containerized liquids transported as RCRA hazardous wastes.

The inventory and sampling of liquid wastes were performed by CHESI under the direction of OBG from August 7 through 22, 2003. The task involved all site vessels, including ASTs, drums, and other containers. The ASTs were inventoried and sampled for waste profiling purposes, and disposal

characterization samples were submitted to the CHESI laboratory in Chicago, Illinois. The inventory revealed 34 ASTs, ranging in estimated volume from 20 to more than 200,000 gallons, containing a total estimated waste volume of over 700,000 gallons. In addition, 31 empty ASTs were present on site.

The drums were inventoried and sampled from August 18 through 22, 2003. Drums containing liquids were differentiated from drums containing solids by painting color-coded markings on each drum. The inventory revealed that there were 109 55-gallon drums of liquid wastes and 118 drums of solid materials. During drum sampling, ambient air conditions were monitored using a photoionization detector (PID) to ensure that any releases and associated threats to on-site personnel would be detected. No elevated PID readings were recorded. Small containers were field-categorized and lab-packed by the CHESI chemist.

Inventory and sampling activities were completed on August 22, 2003. On-site personnel demobilized from the site at this time, until waste disposal arrangements could be made.

Waste profiling revealed six liquid waste streams at the site: (1) nonhazardous oil/water, (2) blended fuels, (3) flammables, (4) F-listed wastewater, (5) dilute/recovered perchloroethylene, and (6) crude oil.

3.3 LIQUID WASTE REMOVAL

The removal personnel remobilized to the site on September 2, 2003. Equipment was set up that day, and the CHESI crew began removing liquid wastes from ASTs on September 3, 2003. Liquid wastes in ASTs were removed by either directly loading the wastes into vacuum trucks or transferring the wastes into liquid transporters using pneumatic transfer pumps. The blended fuel waste stream with a British thermal unit (BTU) value of greater than 5,000 was transported to Energis LLC (Energis) in Clarksville, Missouri, for use as kiln fuel. Other liquid wastes, including the nonhazardous, flammable, and F-listed wastes, were transported to the CHESI facility in Chicago, Illinois. Drums were separated according to waste streams. When possible, the drums' contents were pumped out and removed from the site by bulk transport or vacuum truck. If bulk transport was not possible, drums were overpacked and transported off site in trucks.

Liquid waste removal was completed on January 14, 2004, except for the contents of AST G4. This AST was determined to contain crude oil waste that was profiled separately from the other materials. AST G4's contents were removed from April 12 through May 17, 2004. CHESI used a fuel oil-fired boiler to generate steam heat circulated in a closed-loop system to liquify the paste-like crude oil materials. This waste stream was transported to the Energis facility.

Issues encountered during removal of liquid wastes included the following:

- The contents of AST G6 were initially rejected for fuel blending because the material's BTU value was less than 5,000 due to its high water content. The contents were dewatered and were then accepted for fuel blending.
- Caustic was added to the contents of AST G3, which were categorized as sulfide oil/water, before they were transported to the CHESI facility in Chicago.
- The contents of AST G5 were not suitable for energy recovery because of their high sulfide content. Caustic was added to the contents before they were transported as F-listed wastewater to the CHESI facility in Chicago.
- As noted above, AST G4 contained high-viscosity crude oil that formed a thick crust within the tank. This material was originally designated for disposal as special waste at a local landfill, but was rejected because of its benzene concentration. The waste was ultimately transported to *Energis* for energy recovery. *The steam heating necessary to remove this heavy waste material* from AST G4 significantly extended the project schedule.
- The initial screening of three ASTs indicated potential polychlorinated biphenyl (PCB) contamination. However, follow-up sample analytical results for these ASTs' contents did not indicate the presence of PCBs.
- Sludge materials at the bottom of some of the ASTs that could not be pumped out were left in place and are to be addressed during the next phase of the removal.

3.4 AST DECONTAMINATION

AST decontamination was performed as liquid waste removal was completed. AST cleaning began as soon as enough ASTs were emptied to justify mobilization of a decontamination crew. A crew consisting of a confined-space entry supervisor and two field technicians performed AST decontamination. ASTs were washed using a pressure washer. Rinsate was collected in designated empty ASTs and was transported off site for disposal.

3.5 DEMOBILIZATION

The final site inspection and demobilization occurred on May 17, 2004. Representatives of the RRG/Clayton Chemical Site Liquids Group, START, IEPA, OBG, and CHESI were present. During the inspection, the requirements of the CHESI contract and the actual work accomplished were reviewed, and a list of tasks required to complete the project was developed. This list included proper closure of all ASTs and other vessels, general site cleanup, obtaining remaining manifests, and completing all data tables. Upon completion of the on-site tasks, the CHESI crew demobilized from the site. The manifests and final data tables were received by START on May 24, 2004.

4.0 WASTE DISPOSAL

A total of 492,007 gallons of liquid waste was transported from the site to the CHESI facility in Chicago, Illinois, and a total of 318,878 gallons of liquid waste was transported from the site to Energis in Clarksville, Missouri. A summary of the waste disposal information is provided in Table 1.

TABLE 1
WASTE DISPOSAL SUMMARY

Containers	Waste Stream	Volume (gallons)	Disposal Facility
G3, G7, #14, G8	Oil/water	302,670	CHESI
G2, G5, G6, B4, B2, G8, G9, G10, G11, #13, B1, #12, #11, B3, S3	Blended fuels	248,293	Energis
G5, #11	F-listed wastewater	89,764	CHESI
#37, #33, S1, #46, #52, #46	Dilute/recovered perchloroethylene	22,220	CHESI
S5, #53, S4, S2	Flammables	36,621	CHESI
G2, G9, #11, #12, S5, R1, #13	AST bottoms	33,890	CHESI
G4	Crude oil	70,585	Energis
124 Drums	Various	6,842	CHESI
Total AST Liquid Waste Volume		804,043	
Total AST and Drum Liquid Waste Volume		810,885	

Notes:

AST = Aboveground storage tank

CHESI = Clean Harbors Environmental Services, Inc. in Chicago, Illinois

Energis = Energis in Clarksville, Missouri

5.0 SUMMARY AND CONCLUSIONS

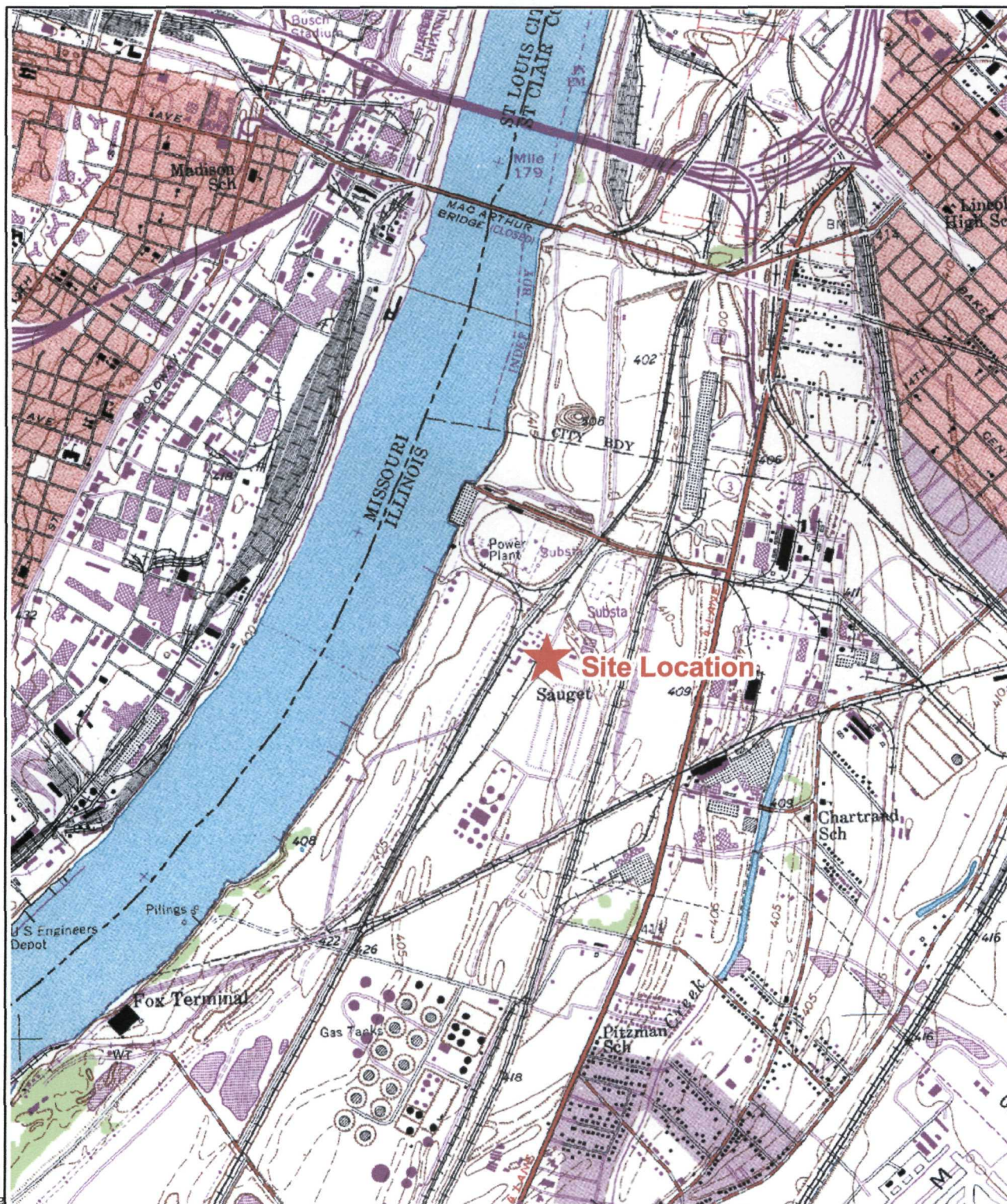
START was tasked by U.S. EPA to provide oversight of the PRP-lead removal of liquid wastes at the RRG/Clayton Chemical site in Sauget, Illinois. The removal activities included an inventory, sampling, profiling, removal, transport, and off-site disposal of all liquid wastes remaining on site. Following liquid waste removal, 34 ASTs were decommissioned by washing them, removing their piping, and welding all their openings closed. Solid waste materials remaining on site are to be addressed in the next phase of the removal project.

OBG was selected to manage the removal and to perform oversight on behalf of the PRP. The PRP contracted CHESI to perform most activities associated with the removal, including sampling, procurement of analytical services, transport, and disposal of liquid wastes. The removal action occurred from August 7, 2003, through May 17, 2004, with a break period from January 14, through April 12, 2004, to consider disposal options for viscous crude oil in one AST. A total of 810,885 gallons of liquid waste material was disposed of and transported off site to the appropriate disposal facilities. Work remaining at the site includes disposal of solid materials, such as solid sludge materials left at the bottom of some ASTs, and remediation of impacted soils. The time frame for the next phase of the removal has not yet been determined.

APPENDIX A
FIGURES

FIGURE 1 - Site Location Map

FIGURE 2 - Site Layout Map



Illinois

Source: USGS Cahokia, IL - MO, 7.5-Minute Topo Quad, 1954, Revised 1993



0 1,000 2,000



Scale in Feet

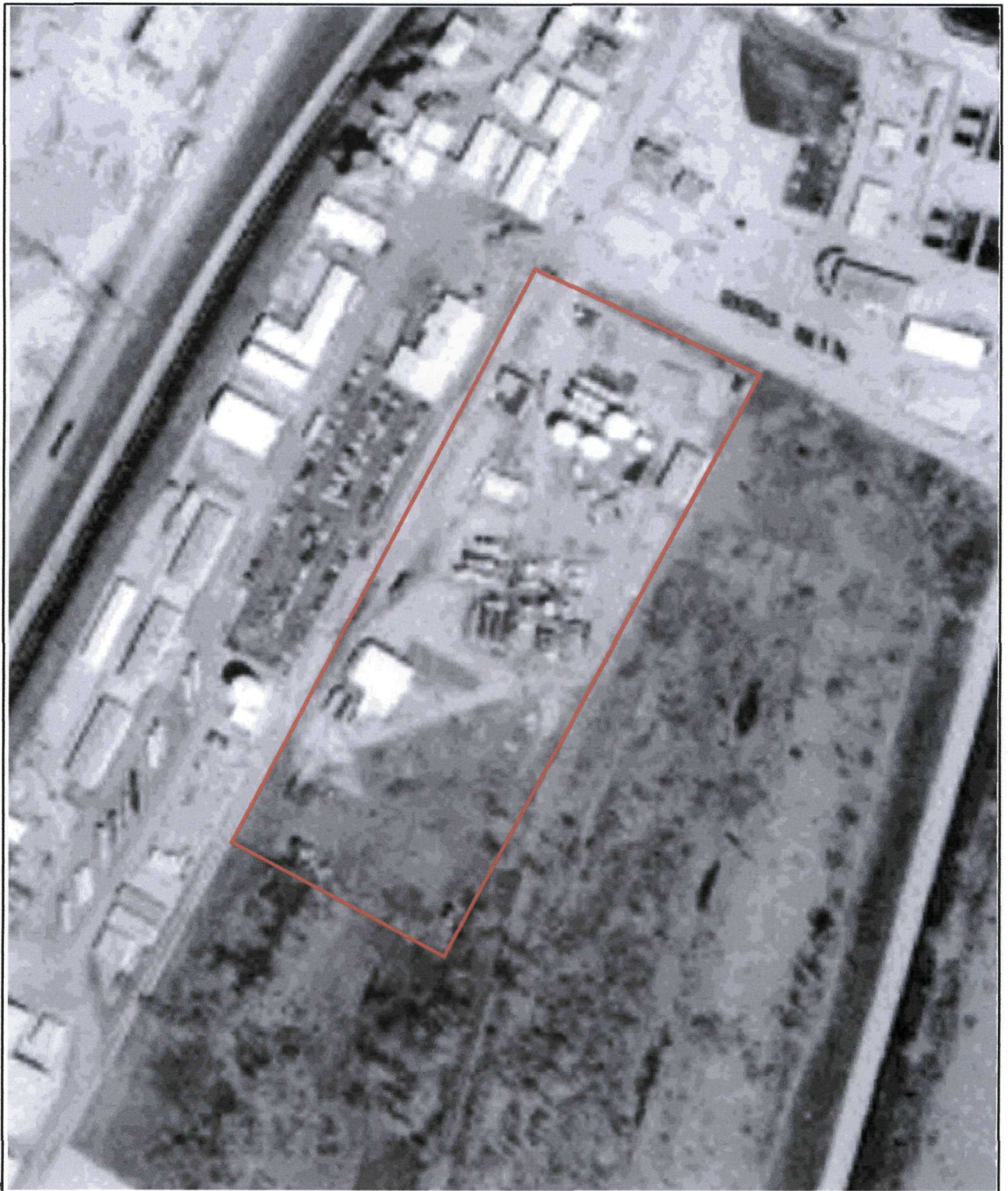
RRG/Clayton Chemical Site
Sauget, St. Clair County, Illinois
TTD No.: S05-0307-011

Figure 1
Site Location Map

 Tetra Tech EM Inc.

Date: 07/09/04

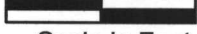
Drawn by: Michelle Handley



Legend

 SITE BOUNDARY



0 100 200

 Scale in Feet

Source: USGS Cahokia NE Digital Orthophoto Quad, 04/02/98

RRG/Clayton Chemical Site
 Sauget, St. Clair County, Illinois
 TTD No.: S05-0307-011

Figure 2
 Site Layout Map

 Tetra Tech EM Inc.

Date: 07/09/04

Drawn by: Michelle Handley

APPENDIX B
PHOTOGRAPHIC LOG
(Nine Pages)



Photograph No.: 1

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Site entrance/field office next to former Resource Recovery Group (RRG) office

Orientation: South

Date: August 18, 2003



Photograph No.: 2

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Tank farm containing liquid wastes

Orientation: Southeast

Date: August 18, 2003



Photograph No.: 3

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Contamination reduction zone and decontamination area

Orientation: West

Date: August 18, 2003



Photograph No.: 4

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Interior of drum storage building

Orientation: East

Date: August 18, 2003



Photograph No.: 5
TDD No.: S05-0307-011
Location: RRG/Clayton Chemical site
Subject: Drum storage area

Orientation: West
Date: August 19, 2003



Photograph No.: 6
TDD No.: S05-0307-011
Location: RRG/Clayton Chemical site
Subject: Drum storage area during sampling activities

Orientation: Northwest
Date: August 19, 2003



Photograph No.: 7

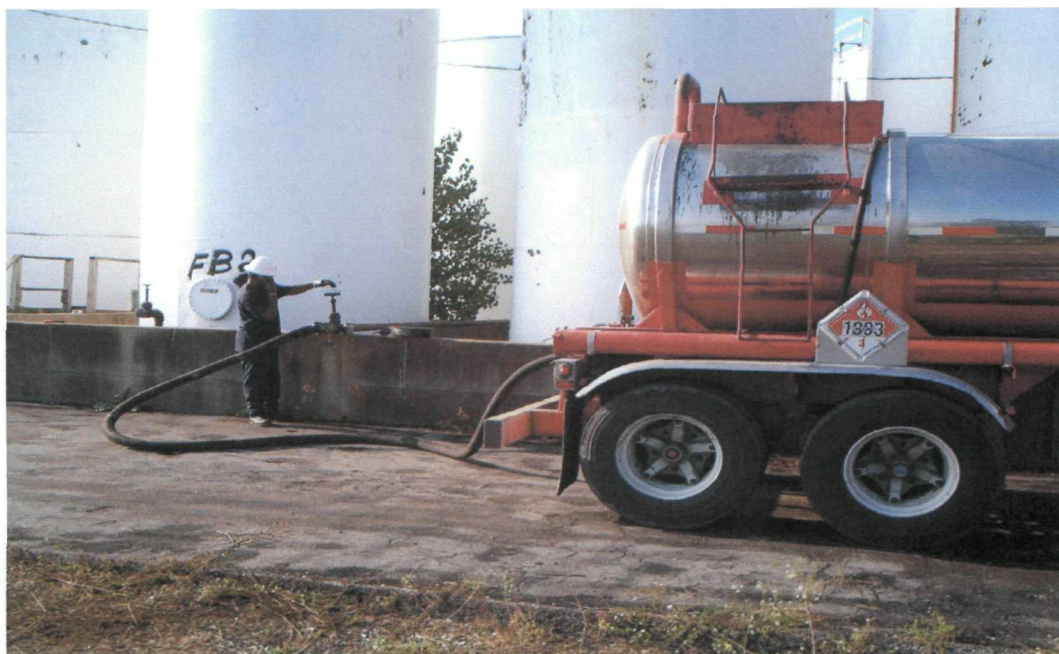
TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Gauging and sample collection at aboveground storage tank (AST) G4

Orientation: South

Date: August 20, 2003



Photograph No.: 8

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Loading liquid waste into vacuum truck

Orientation: South

Date: October 10, 2003



Photograph No.: 9

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Manway door for AST G7

Orientation: South

Date: October 31, 2003



Photograph No.: 10

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Sludge remaining in AST G5

Orientation: South

Date: October 31, 2003



Photograph No.: 11
TDD No.: S05-0307-011
Location: RRG/Clayton Chemical site
Subject: AST G4 contents

Orientation: West
Date: December 22, 2003



Photograph No.: 12
TDD No.: S05-0307-011
Location: RRG/Clayton Chemical site
Subject: Empty ASTs on the southwest side of site

Orientation: Southwest
Date: November 11, 2003



Photograph No.: 13

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Modest leak discovered during routine site inspection

Orientation: South

Date: January 9, 2004



Photograph No.: 14

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: ASTs were dated with paint when liquid waste removal was completed

Orientation: North

Date: January 19, 2004



Photograph No.: 15

TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Empty drums were placed in drum storage building

Orientation: West

Date: January 19, 2004



Photograph No.: 16

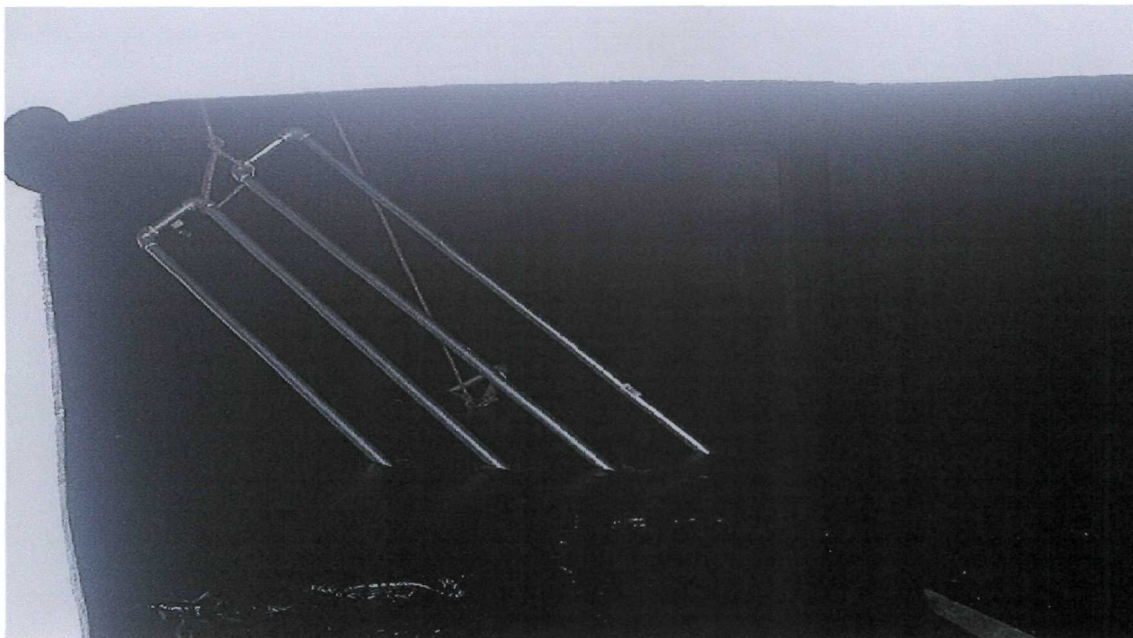
TDD No.: S05-0307-011

Location: RRG/Clayton Chemical site

Subject: Fuel oil-fired boiler (mobile system) to generate steam heat

Orientation: East

Date: April 6, 2004



Photograph No.: 17

Orientation: North

TDD No.: S05-0307-011

Date: April 6, 2004

Location: RRG/Clayton Chemical site

Subject: Steam coils used to liquify crude oil in AST G4



Photograph No.: 18

Orientation: North

TDD No.: S05-0307-011

Date: May 18, 2004

Location: RRG/Clayton Chemical site

Subject: Sealed entrance ports of AST G4

APPENDIX C
FIELD LOGBOOK NOTES
(26 Pages)

Outdoor writing products for outdoor writing people."



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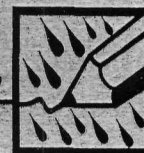
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Clayton
Chemical

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G 9009 E-0307-011

8/6/03 PC 88°F

1251 Arrive site for
Pre construction meeting
hosted by Scott Cormier of
OBrien Gere

1) Intro & Role of Attendees
OBG → PM @ ENGRS
PRR Group Tech comm.
NAPSCO MAGNA

Janet Haines
Mallinkrodt Jim Grant
Tebia Phan.
Chrysler

Steering Comm
Meg KAUFMAN
Sheldon Karlin - Atty. →
COUGLIN

Clean Harbors has disposal
contract

2) Rules & Communications

• AOC

• Access Agreement

Mr. Ballinger owns site

2 8/6/03 cont.

3) Liquids Removal W.P.

- HASP'S (2)
- Site Security
- Air Monitoring (2)

Bring both together

- Site Contingency Plans
- New Generator ID's for PRP Group

4) Notification & Schedule

- This is the Notification

5) Meetings & Progress Reports

- on going

6) Certificate of substantial completion

7) Final Report

- Post removal Site Control
- Certified Final RPT

8) Other

only Liquids Removal
1 clean & 1 Rinse & Dispose

8/6/03

1533 SITE TOUR.

- SAFETY CONCERNS with
- stairs & Rails
- bees

Decom. H_2O source & Fine
WATER source

Local notifications

1549 Scott Currier departs
will not be back.

Tank # 51 formerly
had a leak.

1632 Depart Site.

Next meeting on 8/17/03
w/ TWI personnel
for shared resources.

[Signature]

6

8/11/03 PC. 83°F Monday

1310 Arrive on-site

1322 TANKS Sampled on 8/8/03

TANK # Sample Interval

G3-13'

13'

G3-19'

G3-23

G3-28

G2-

G2-3

G2

G2-8

G2-13'

G6

G6-12'

G6-17'

G6-22

G9

G9-16

G9-16

G9-22

G7

G7-10

G7-17

G7-24

1417 Depart Site

~~John Dwyer~~

7

Tuesday

8/12/03 Cloudy 79°F Humid

1415 Arrive on-site

Kevin Turner & Mike Grant
were here to visit todayWeekly meetings are being
held every Friday at 9:00am

1423 Brief rundown by

John Behrens & Jack Daily.

No issues at this time

other than TANK G-4

"Crude oil" with "headspace"
of ~ 21 Feet that has
a "crust" on the surface.Clean Harbours may use a
conduit pipe to pierce the
crust layer and sample

SAMPLES Collected on 8/11/03

TANK	Depth
B2	8'
B2	19'
B4	13'
B4	71
B3	1.5'

8

8/12/03 Continued

G8	26'
G8	24'
G8	12'
B2	-3'
G11	1'
G10	13'
G10	7'
G10	18.5'
G10	27'
B4	19'
B1	23'
B1	9'
B1	14'

1510 Depart Site

Thomas Daily

9

8/13/03 Cloudy humid 84°F

1401 Arrive on-site

WORKING on Drums today
to identify if Liquid or Solid
empty or Partial or Full.

Jack Daily asks me to inspect
the outside drum storage
area. OK if Temporary only
due to "RCRA empty" residual
materials that could leak or
accumulate rain water.

ONE Drum on drum dolly
was leaking a clear fluid.
and a small recent spill.
was observed. Tom Benz
requested to place adsorbent
materials and cleanup small
spills. No reportable requirement
at this time.

10

8/13/03 cont

TANK #	Sample Depth
S2	20'
S2	13
S2	18'
S1	10'
S1	15'
37	12.7'
37	9.7'
37	2.7'
24	1.9'
46	1.5'
46	5.5'
33	7.7'
33	2.7'
51	13.8'
51	8.8'
A1	9.9'
A1	3.5'

1510 Depart Site

8/14/03 Clear Hot Humid "

1307 Arrive on-site

Planning for weekly meetings
on Friday's 2.9 AM

TANKS Sampled today

TANK #	Depth of sample
S5	4'
S5	12'
S5	18.4
S4	7'
S4	12'
S4	16.41
S3	5.0
S3	10'
2	1.0'

1402 Depart Site

12

8/15/03 ~~at~~ Hot ^{Humid} 91°F
0855 Arrive on-site

WEEKLY Meeting minutes.

- 1) No significant findings re:
Air Monitoring Activities
- 2) All TANKS Sampled
except TANK G-4 that has
a hard surface layer.
- 3) Drums were verified Liquid
or solid. Completed
and color coded.
Initiate drum staging next
to Drum Storage Area.
- 4) Samples are delivered
weekly to CHarbors Chicago
Laboratory.
- 5) Clean Harbors Chemist
on-site to inventory For
Estimate Lab Pack.
- 6) SAMPLE G-4 next week
after drums
- 7) Sampling for drums starts
on 8/18/03
- 8) Do Lab Pack next week or
after

13

8/15/03 Cont.

TANKS Sampled on 8/15/03

G-11	1.0'
G-10	7.0'
G-16	13'
G-10	18.6'
G-10	27.0'
B-4	19.0'
B-1	23.0'
B-1	9.0'
B-1	14.0'
B-2	8.0'
B-2	19.0'
B-4	13.0'
B-4	7.0'
D-3	1.6'
G-8	26.0'
G-8	24.0'
G-8	12.0'
B-2	3.0'

1142 Depart Site.

[Signature]

14

85°F

8/18/03 Clear Hot Humid

1009 Arrive on-site.

Jack says that empty drums
and tanks will not be
sampled.

Jack Daly presents a copy
of "Draft" Tank Inventory
Spread sheets.

Drums Sampled on 8/18/03

#2	#39	60
3	40	61
4	46	68
6	47	
7	48	
8	49	
31	50	
32	51	
33	52	
34	53	
35	54	
36	55	
37	57	

John Daly

15

8/19/03 Clear Hot Humid

1310 Arrive on-site

Collecting samples from
Drums continues today

Drum #

Sampled on 8/18/03

#69	111	156	194
#70	112	163	195
71	115	164	199
86	116	165	200
88	117	166	201
99	118	168	
100	119	169	
101	121	170	
102	123	171	
103	124	173	
105	125	175	
106	126	176	
107	127	182	
108	128	183	
110	129+130	190	

16

8/12/03 cont

Pictures taken this day

1340 5 gallon Drums, parts inside
BuildingClean Harbors Crows vaterding
scattered drums plap in other
areas of the site.Picture of Boxes containing custom
Samples

Picture of Drums in storage Bldg

Picture of drums in Building
w/ sample Jars on topPicture of drums in Bldg w/ sample
Jars on topPicture of drums w/ sample
Jars on top

Picture of sample Jars on top

17

8/19/03

1410 Dyson site

J. H. B.

18

8/20/03

86°F Hoto Hump

19

0854 Arrive onsite for
weekly meeting

Project will Temporary Shut
down today and will
Re-mob on 9/2/03 to
allow time to complete
sampling analysis.

All drums have been sampled
221 drums total.

LKB prob is happening
~~at this~~ at this
Time

Clean Harbors will stick
the G-4 tank today

Picture of Clean Harbors
probing the Tank G-4
Hard Surface Layer
Looks like high paraffin
crude oil

20

9/3/03 cloudy 68°F

0805 Arrive on site

Two Bulk liquid Trailer Trucks
are loaded and prepared for
shipment.

0825 Two Trucks depart site
w/ oil & water from Tank G-3
Plans are to ship 2 Trailers
per day this week and
ramp up to 4 T/L/week
for the next week.

NON-REGULATED NON-HAZ
NON DOT Regulated OIL/WATER
MANIFEST II

IL 1070365 5012 Gallons

IL 10705366 5116 Gallons

0842 TOUR SITE w/ Mike Grant
to inspect TANK S-2 which
was leaking previously.
A blind ~~was~~ Flange was
installed to eliminate the
breach.

21

24

9/9/03

69°F Clear

0817 Arrive on site

Shipping 2 loads of
Non-HAZ. oil & water
to CASI in charge
today.

No resolution w/ H₂S pricing
surcharges and charges
w/ H₂Logen's in oils.

2902 Depart site.

25

9/10/03

74°F Clear

1150 Arrive on site

H₂S problems have
re-appeared. 2 Trucks
were canceled, 1 Truck was
rejected and returned to
the site.

O'Brien Gere / PRP Group
will conference w/
Clean Harbors today.

1255 Depart site

26

9/11/03 86°F clear

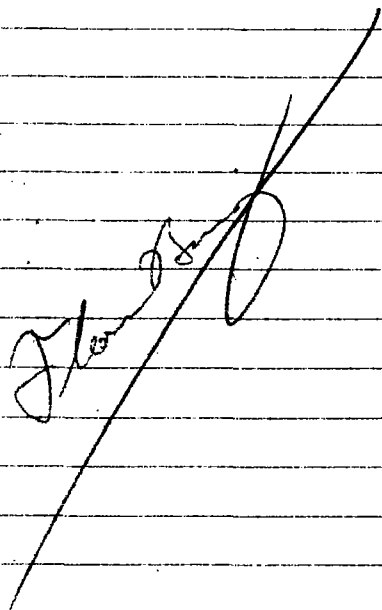
1540 Arrive on-site

No resolution at this time
on H_2S Treatment
and Halogens.

Technical Committee is
advised and awaits
final approval by all in
the group.

If no resolution comes soon,
a temporary shut-down
of a few days to weeks
is possible.

1644 Dep't Site



27

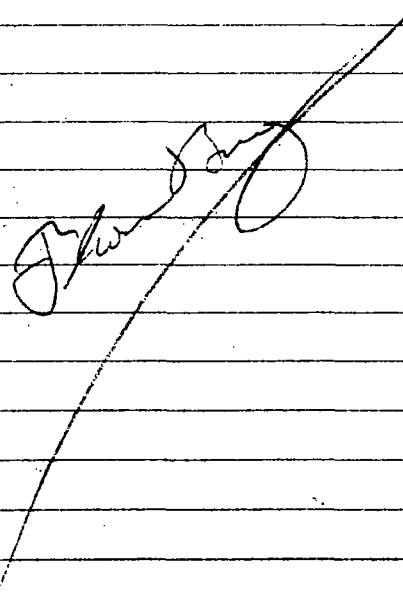
9/12/03

0830 Arrive on-site

0846 Weekly meeting
TO DATE:

- ~ 50K OIL & WATER shipped
- 10 TANKS washed.
- No resolution on H_2S , Halogens
met at a conference
and not reachable (Janet Haynes)

0922 Dep't Site



28

9/19/03

0902 Arrive on-site for
weekly meeting

- 86,615 gal removed to date
- 10m gal at H2S H2O treat mat to date
- 36,258 gal this week
- Helcim was bought by Energis
- Tank 6-4 is too high viscosity
- 8 Tanks cleaned this week
- 29 Tanks total cleaned to date
- No PCB's in Tanks B-4-B2
- 6-8 = @ 50,000 gals.
- Getting second transporter approved

0951 Meeting over
with the site. Gloves were
picked up.

1017 Depart Site

29

9/25/03

1047 Arrive on-site

Jack Daily informs me that PRP issues with not signing profiles or WASTE CODE Declarations not being acted on, Clean Harbours is nearing shutting down due to in action by PRP's. My response was to contact Kevin Turner and see if Kevin should contact the PRP Group. I told Jack Daily that I would give him till ^{after} lunch time to contact Scott Cormier that I was to contact Kevin Turner.

1210 Jack Daily called the cell phone to inform me that the PRP Group has approved the Helcim name change to ENERGIS in Louisiana Mo.

1320 Return to site.

Jack got a phone call from Scott Cormier saying it was ok to "SIGN-OFF" on waste Profiles. I take this to be the good faith action necessary to move forward.

30

9/25/03

I will contact Kevin Turner to
inform him of such

1512 Left VM message for

Kevin and called his Bexar

1807 Kevin did not return phone
call, Dgsort Office

John D. Jones

31

9/26/03 RAIN 55°F

0921 Arrive on-site for
weekly meeting

- TOTAL amount removed to date
122,296 gal on ~1780
- First TIL to fuels scheduled for
9/29/56
- No Tanks cleaned this week
30 cleaned to date.
- Robbie Woods is approved as
Transport Sub of non-Haz
- Energis is approved as port of
Hole-in-Francis
- Flowable issue is not resolved.
- ~~XX~~ JDD

1050 Dgsort site

32

10/31/03

1203 weekly meeting

93% complete

1220 2 pictures of B-3
Empty to floor and wet
bottom

1223 1 picture of B-2
Sludge layer is tacky

1224 1 picture of B-4
w/ oil & solids
Now - pumpable.

1230 1 picture of G-5
Solids are ~ 2.0' deep

1232 1 picture of G-6
Solids are just below
Mannay. Penet butter
casser like composition.

33

1233 G-9 has 4.0 feet
of sludge
G-10 has ~ 2.5 feet
of sludge. Both have
mannay covered.

G-3 is liquid empty

~~1234~~

Mike Grant is in attendance
and agrees to several tanks
do contain solids that
are not part of LHS
Removal.

34

11/10/03 Monday 39°F clear

0828 Arrive on-site.

Jack Daily will be
departing the project this
week. Alicia Hirschbuehler
from OBR 6 St. Louis office
will train for on-site rep.
responsibilities.

0902 Weekly meeting

Project is 98% completed
w/ G-4 removed from
the equation

total tanks cleaned to date
is 39 which is ~ 50%
complete.

Expect lab results later

This week for G-4 (center)

Collect waste Profile sheets

35

11/11/03 Cloudy 64°F

0904 Arrive on-site

0926 Antiseptic inspection of
tanks emptied to date.
The following tanks are
confirmed empty.

S-3, S-6, S-7, S-8, S-9,
T-1, T-2, T-3, T-4
T-5, T-6, T-7, T-8,
T-9, T-10, T-11, T-12
T-13, T-14, T-15, T-16,
T-18,

1344 Picture of LHS in
samples being decanted
into 55 gal Drums

1356 Picture of empty drums
outside of Storage Build.

1421 4 pictures of empty
tanks along the south
side of site

1511 Depart Site

12/5/03 Cloudy Rain / Sleet / Snow

0810 Arrive for weekly status meeting

Only 3 Truck loads shipped off-site this week

4 Tanks washed this week

10 Tanks remain to clean

yet.

Expecting 4 T/L next week

All outstanding profiles have been approved by O.B.G.

Tank G-4 proposal has not been generated at this time

Expecting 4 Truck loads next week.

0851 Depart site

12/12/03

Drums ^{to be} removed on 12/29/03

Tanks Cleaned

13, 12

Next week open tank G-5

1 Load of Bulk liquids

38

12/22/03

3 Pictures of TANK G-5

39

40 1/9/07

32°F Cloudy

0929 Arrive on-site

Final Site Walk

Tom Binz TTEMT/EOA

Alicia Hensbuckler OBG

Dave Haverdink " "

Jim Grant Mellinckhoff

Toby Viehweg Clean Harbors

Hike Grant IEPA

Chris Cavanaugh IEPA

Tank G-4 NO decision at this
time except that
substantial completion is
done and an extension
is provided for G-4

1009 1 picture of meeting

Jim Grant → PRP's will go
out for rebid on
G-4.

LHS will be done next week

Final Rebid at end of month

41

Picture of Tank #53
leaking fluid.

Tank S-9 Floor ~~is~~
has a dark spot next
to that is discolored.

42

1/19/04

22°F Ocean

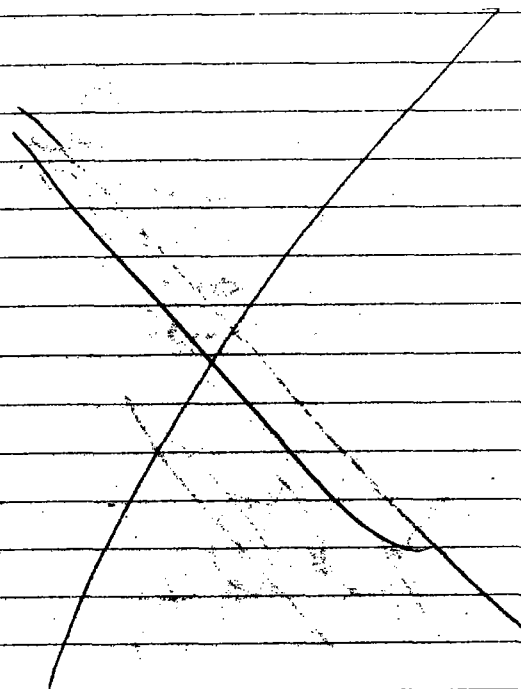
1256 Arrive on-site
Project near completion

1322 5 pictures of
Site including:

2 pictures of empty drums
stored in drum storage
Building.

~~2~~ 1 picture of empty tanks
2 pictures of custody seal
used on manways piping

43



44

4/15/04

58°F clear

1304 Arrive on-site

Boiler system is now operational
 2 steam coils were added
 Plan to let steam heat affect
 the viscosity over time

1506 Depart Site

[Signature]

45

4/24/04

1307 Arrive on-site

Rick Fellores indicates that
 will try to remove one load
 per day if possible.

Tank level has dropped
 approximately 4-5 feet.

Steam heater is working.

1 picture inside tank

1410 Depart Site

[Signature]

46 5/10/04

0912 Arrive onsite

62094 gallons removed to
detention TANK G-4.

5398 Gallons today
~ 14.0" of product
remain at this time

5/17/04

PC. 84°F

47

1022 Arrive onsite for
Binal Site WALK OVER
for LHS Removal phase

Attendees:

Alicia Hensbuckler > OBG
Dave Havardink

Rich Follares Clean Tankers
Tom Bierz TTE&F

* NOT Present Mike Grant Fern

For inspection today
Tank G-4 contents is
removed, Tank was cleaned
sufficiently as inspected.

Tank Holes were sufficiently
patched to mitigate rainwater
accumulation.

Manway cover was bolted
and sealed with
security lock.

48 5/17/04

1040 5 pictures of TANK
G-4 patch (Temporary)
repairs

1102 Inspection of TANK G-4
is completed by Tom Dine
Removal of contents
is sufficient.

1108 walk the fence line
around site perimeter

1110 Small Fence repair
required on the South
Property line.

1142 Depart Site

~~Shane~~

APPENDIX D
MANIFEST TRACKING LOG
(Six Pages)

Table 1. RRG/Clayton Chemical Site Liquids Group - Manifest Tracking Log

Manifest No.	Returned	Document No.	Transporter	Gallons	Profile No.	Waste Type	AST No.	Transport Date	Disposal Facility
IL10705365	X	00001	CHESI	5,012	CH173426B	Oil/water	G3	9/3/2003	CHESI - Chicago
IL10705366	X	00002	CHESI	5,116	CH173426B	Oil/water	G3	9/3/2003	CHESI - Chicago
IL10705367	X	00003	CHESI	5,074	CH173426B	Oil/water	G3	9/4/2003	CHESI - Chicago
IL10705368	X	00004	CHESI	5,431	CH173426B	Oil/water	G3	9/5/2003	CHESI - Chicago
IL10705370	X	00005	CHESI	4,725	CH173426B	Oil/water	G7	9/8/2003	CHESI - Chicago
IL10705369	X	00006	CHESI	4,790	CH173426B	Oil/water	G7	9/8/2003	CHESI - Chicago
IL10705372	X	00007	CHESI	4,890	CH173426B	Oil/water	G7	9/9/2003	CHESI - Chicago
IL10705373	X	00008	CHESI	5,040	CH173426B	Oil/water	G7	9/9/2003	CHESI - Chicago
IL10705400	X	00009	CHESI	5,050	CH173426B	Oil/water	G7/#14	9/10/2003	CHESI - Chicago
IL10705394	X	00010	CHESI	5,229	CH173426B	Oil/water	#14	9/11/2003	CHESI - Chicago
IL10705396	X	00011	CHESI	5,275	CH173426B	Oil/water	#14/G7	9/13/2003	CHESI - Chicago
IL10705395	X	00012	CHESI	5,130	CH173426B	Oil/water	#14	9/15/2003	CHESI - Chicago
IL10705388	X	00013	CHESI	5,275	CH173426B	Oil/water	G8	9/15/2003	CHESI - Chicago
IL10705387	X	00014	CHESI	5,160	CH173426B	Oil/water	G8	9/16/2003	CHESI - Chicago
IL10705393	X	00015	CHESI	5,303	CH173426B	Oil/water	G8	9/17/2003	CHESI - Chicago
IL10705381	X	00016	CHESI	4,840	CH173426B	Oil/water	G3	9/18/2003	CHESI - Chicago
IL10705392	X	00017	CHESI	5,275	CH173426B	Oil/water	G3	9/18/2003	CHESI - Chicago
IL10705386	X	00018	CHESI	5,050	CH173426B	Oil/water	G3	9/22/2003	CHESI - Chicago
IL10705374	X	00019	CHESI	4,872	CH173426B	Oil/water	G3	9/22/2003	CHESI - Chicago
IL10705375	X	00020	CHESI	5,181	CH173426B	Oil/water	G3	9/23/2003	CHESI - Chicago
IL10705397	X	00021	CHESI	5,115	CH173426B	Oil/water	G3	9/23/2003	CHESI - Chicago
IL10705391	X	00022	CHESI	5,150	CH173426B	Oil/water	G3	9/24/2003	CHESI - Chicago
IL10705390	X	00023	CHESI	5,050	CH173426B	Oil/water	G3	9/25/2003	CHESI - Chicago
IL10705376	X	00024	CHESI	5,263	CH173426B	Oil/water	G3	9/26/2003	CHESI - Chicago
IL10705435	X	00025	CHESI	5,060	CH173426B	Oil/water	G3	9/26/2003	CHESI - Chicago
IL10705451	X	00030	CHESI	5,010	CH173426B	Oil/water	G3	9/29/2003	CHESI - Chicago
IL10705401	X	00031	CHESI	4,960	CH173426B	Oil/water	G3	9/30/2003	CHESI - Chicago
IL10705462	X	00032	RDW	4,980	CH173426B	Oil/water	G3	9/30/2003	CHESI - Chicago
IL10705450	X	00027	RDW	5,102	CH173426B	Oil/water	G3	9/29/2003	CHESI - Chicago
IL10705436	X	00028	CHESI	5,204	CH173426B	Oil/water	G3	9/29/2003	CHESI - Chicago
IL10705402	X	00035	CHESI	5,060	CH173426B	Oil/water	G3	9/30/2003	CHESI - Chicago
IL10705452	X	00039	RDW	5,133	CH173426B	Oil/water	G3	10/1/2003	CHESI - Chicago
IL10705441	X	00040	CHESI	4,980	CH173426B	Oil/water	G3	10/1/2003	CHESI - Chicago
IL10705440	X	00043	CHESI	5,121	CH173426B	Oil/water	G3	10/1/2003	CHESI - Chicago
IL10705443	X	00047	CHESI	5,113	CH173426B	Oil/water	G3	10/2/2003	CHESI - Chicago
IL10705463	X	00048	RDW	5,102	CH173426B	Oil/water	G3	10/2/2003	CHESI - Chicago

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Manifest No.	Returned	Document No.	Transporter	Gallons	Profile No.	Waste Type	AST No.	Transport Date	Disposal Facility
IL10705398	X	00050	CHESI	5,121	CH173426B	Oil/water	G3	10/3/2003	CHESI - Chicago
IL10705457	X	00053	RDW	4,535	CH173426B	Oil/water	G3	10/6/2003	CHESI - Chicago
IL10705456	X	00055	RDW	5,024	CH173426B	Oil/water	G3	10/6/2003	CHESI - Chicago
IL10705444	X	00056	CHESI	5,121	CH173426B	Oil/water	G3	10/6/2003	CHESI - Chicago
IL10705455	X	00057	RDW	4,584	CH173426B	Oil/water	G3	10/7/2003	CHESI - Chicago
IL10705389	X	00059	CHESI	5,113	CH173426B	Oil/water	G3	10/7/2003	CHESI - Chicago
IL10705445	X	00060	CHESI	5,121	CH173426B	Oil/water	G3	10/7/2003	CHESI - Chicago
IL10705454	X	00062	RDW	4,584	CH173426B	Oil/water	G3	10/8/2003	CHESI - Chicago
IL10705478	X	00064	CHESI	5,113	CH173426B	Oil/water	G3	10/8/2003	CHESI - Chicago
IL10705468	X	00065	CHESI	5,121	CH173426B	Oil/water	G3	10/8/2003	CHESI - Chicago
IL10705453	X	00067	RDW	4,584	CH173426B	Oil/water	G3	10/9/2003	CHESI - Chicago
IL10705464	X	00069	RDW	4,944	CH173426B	Oil/water	G3	10/9/2003	CHESI - Chicago
IL10705477	X	00071	CHESI	5,121	CH173426B	Oil/water	G3	10/9/2003	CHESI - Chicago
IL10705458	X	00072	RDW	4,555	CH173426B	Oil/water	G3	10/10/2003	CHESI - Chicago
IL10705469	X	00073	CHESI	5,121	CH173426B	Oil/water	G3	10/10/2003	CHESI - Chicago
IL10705461	X	00075	RDW	4,781	CH173426B	Oil/water	G3	10/13/2003	CHESI - Chicago
IL10705470	X	00076	CHESI	5,121	CH173426B	Oil/water	G3	10/13/2003	CHESI - Chicago
IL10705476	X	00078	CHESI	5,121	CH173426B	Oil/water	G3	10/13/2003	CHESI - Chicago
IL10705459	X	00080	RDW	5,080	CH173426B	Oil/water	G3	10/14/2003	CHESI - Chicago
IL10705475	X	00081	CHESI	5,025	CH173426B	Oil/water	G3	10/14/2003	CHESI - Chicago
IL10705474	X	00083	CHESI	5,035	CH173426B	Oil/water	G3	10/14/2003	CHESI - Chicago
IL10705460	X	00084	RDW	4,997	CH173426B	Oil/water	G3	10/15/2003	CHESI - Chicago
IL10705473	X	00085	CHESI	4,020	CH173426B	Oil/water	G3/14	10/15/2003	CHESI - Chicago
IL10705487	X	00135	CHESI	5,072	CH173426B	Oil/water	G3	11/20/2003	CHESI - Chicago
IL10705488	X	00138	CHESI	1,535	CH173426B	Oil/water	14,18	12/1/2003	CHESI - Chicago
			TOTAL	302,670					
040066-0029	X	00029	CHESI	5,146	CH173426B	Fuels	G5	9/29/2003	Energis / Holcim
040066-0026	X	00026	CHESI	5,479	CV000503 FB-2	Fuels	G2/G5	9/27/2003	Energis / Holcim
040066-0033	X	00033	CHESI	5,377	CV000503 FB-2	Fuels	G2/G5	9/30/2003	Energis / Holcim
040066-0034	X	00034	CHESI	5,275	CV000503 FB-2	Fuels	G2/G5	9/30/2003	Energis / Holcim
040066-0036	X	00036	CHESI	5,381	CV000503 FB-2	Fuels	G2/G5	9/30/2003	Energis / Holcim
040066-0037	X	00037	CHESI	5,664	CV000503 FB-2	Fuels	G2/G5	10/1/2003	Energis / Holcim
040066-0038	X	00038	CHESI	5,552	CV000503 FB-2	Fuels	G2/G5	10/1/2003	Energis / Holcim
040066-0041	X	00041	CHESI	5,289	CV000503 FB-2	Fuels	G2/G5	10/1/2003	Energis / Holcim

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Manifest No.	Returned	Document No.	Transporter	Gallons	Profile No.	Waste Type	AST No.	Transport Date	Disposal Facility
040066-0042	X	00042	CHESI	5,351	CV000503 FB-2	Fuels	G5	10/1/2003	Energis / Holcim
040066-0044	X	00044	CHESI	5,182	CV000503 FB-2	Fuels	G5/G2	10/1/2003	Energis / Holcim
040066-0045	X	00045	CHESI	5,265	CV000503 FB-2	Fuels	G5/G2	10/2/2003	Energis / Holcim
040066-0046	X	00046	CHESI	5,375	CV000503 FB-2	Fuels	G5/G2	10/2/2003	Energis / Holcim
040066-0049	X	00049	CHESI	5,209	CV000503 FB-2	Fuels	G5/G6	10/2/2003	Energis / Holcim
040066-0051	X	00051	CHESI	5,082	CV000503 FB-2	Fuels	G2	10/3/2003	Energis / Holcim
040066-0052	X	00052	CHESI	5,218	CV000503 FB-2	Fuels	G2/G5	10/6/2003	Energis / Holcim
040066-0054	X	00054	CHESI	Rejected	CV000503 FB-2	Fuels	G5/G6	10/6/2003	Energis / Holcim
040066-0058	X	00058	CHESI	5,049	CV000503 FB-2	Fuels	G5	10/7/2003	Energis / Holcim
040066-0061	X	00061	CHESI	5,122	CV000503 FB-2	Fuels	B4	10/7/2003	Energis / Holcim
040066-0063	X	00063	CHESI	4,872	CV000503 FB-2	Fuels	G2/G6/B4/B2	10/8/2003	Energis / Holcim
040066-0066	X	00066	CHESI	5,277	CV000503 FB-2	Fuels	G2/B2	10/9/2003	Energis / Holcim
040066-0068	X	00068	CHESI	4,629	CV000503 FB-2	Fuels	B2/G2	10/9/2003	Energis / Holcim
040066-0070	X	00070	CHESI	5,003	CV000503 FB-2	Fuels	G6/G2	10/9/2003	Energis / Holcim
040066-0074	X	00074	CHESI	4,330	CV000503 FB-2	Fuels	G5,G6,G2	10/10/2003	Energis / Holcim
040066-0077	X	00077	CHESI	5,496	CV000603-FB-3	Fuels	G9/G10	10/13/2003	Energis / Holcim
040066-0079	X	00079	CHESI	5,180	CV000603-FB-3	Fuels	G9/G10	10/14/2003	Energis / Holcim
040066-0082	X	00082	CHESI	4,597	CV000603-FB-3	Fuels	G9/G10	10/14/2003	Energis / Holcim
040066-0086	X	00086	CHESI	4,958	CV000603-FB-3	Fuels	G9/G10	10/15/2003	Energis / Holcim
040066-0087	X	00087	CHESI	5,496	CV000603-FB-3	Fuels	G9/G10	10/16/2003	Energis / Holcim
040066-0088	X	00088	CHESI	5,150	CV000603-FB-4	Fuels	G9/G11	10/16/2003	Energis / Holcim
040066-0089	X	00089	CHESI	5,182	CV000503 FB-2	Fuels	G6/G5	10/17/2003	Energis / Holcim
040066-0090	X	00090	CHESI	5,012	CV000503 FB-2	Fuels	G6/G5	10/17/2003	Energis / Holcim
040066-0091	X	00091	CHESI	5,120	CV000503 FB-2	Fuels	G6/G11/B4	10/21/2003	Energis / Holcim
040066-0092	X	00092	CHESI	5,070	CV-0004-03 FB-1	Fuels	#13	10/21/2003	Energis / Holcim
040066-0094	X	00094	CHESI	5,431	CV-0004-03 FB-1	Fuels	#13	10/21/2003	Energis / Holcim
040066-0095	X	00095	CHESI	5,074	CV-0004-03 FB-1	Fuels	B1/G8	10/21/2003	Energis / Holcim
040066-0096	X	00096	CHESI	5,560	CV-0004-03 FB-1	Fuels	#12,#13	10/22/2003	Energis / Holcim
040066-0097	X	00097	CHESI	4,634	CV-0004-03 FB-1	Fuels	G8,B1	10/22/2003	Energis / Holcim
040066-0099	X	00099	CHESI	5,585	CV-0004-03 FB-1	Fuels	#13	10/23/2003	Energis / Holcim
040066-0100	X	00100	CHESI	4,945	CV000603-FB-3	Fuels	G9/G10	10/23/2003	Energis / Holcim
040066-0102	X	00102	CHESI	5,267	CV000503 FB-2	Fuels	G5	10/24/2003	Energis / Holcim
040066-0104	X	00105	CHESI	4,545	CV000503 FB-2	Fuels	G5	10/27/2003	Energis / Holcim
040066-0108	X	00108	CHESI	5,223	CV000503 FB-2	Fuels	G5	10/28/2003	Energis / Holcim
040066-0109	X	00109	CHESI	4,128	CV000503 FB-2	Fuels	G5/#11	10/29/2003	Energis / Holcim
040066-0110	X	00110	CHESI	5,189	CV-0004-03 FB-1	Fuels	#12	10/29/2003	Energis / Holcim

Table 1. RRG/Clayton Chemical Site Liquids Group - Manifest Tracking Log

Manifest No.	Returned	Document No.	Transporter	Gallons	Profile No.	Waste Type	AST No.	Transport Date	Disposal Facility
040066-0112	X	00112	CHESI	5,264	CV000503 FB-2	Fuels	#11	10/29/2003	Energis / Holcim
040066-0113	X	00113	CHESI	3,913	CV000503 FB-2	Fuels	B3/B2	10/30/2003	Energis / Holcim
040066-0115	X	00115	CHESI	5,049	CV-0004-03 FB-1	Fuels	B1	10/31/2003	Energis / Holcim
040066-0119	X	00119	CHESI	4,850	CV-0004-03 FB-1	Fuels	See note	11/4/2003	Energis / Holcim
040066-0123	X	00123	CHESI	5,178	CV000503 FB-2	Fuels	G5/12	11/5/2003	Energis / Holcim
040066-0121	X	00121	CHESI	3,070	CV-0017-03	Fuels	S3	11/5/2003	Energis / Holcim
			TOTAL	248,293					
IL10761858	X	00093	CHESI	5,366	CH173437B	F-Water	#G5	10/21/2003	CHESI - Chicago
IL10761856	X	00098	CHESI	5,064	CH173437B	F-Water	#G5	10/23/2003	CHESI - Chicago
IL10705490	X	00101	CHESI	5,670	CH173437B	F-Water	G5	10/23/2003	CHESI - Chicago
IL10705493	X	00103	CHESI	5,100	CH173437B	F-Water	G5	10/27/2003	CHESI - Chicago
IL10705494	X	00104	CHESI	5,903	CH173437B	F-Water	G5	10/27/2003	CHESI - Chicago
IL10705495	X	00106	CHESI	5,680	CH173437B	F-Water	G5	10/28/2003	CHESI - Chicago
IL10705496	X	00107	CHESI	5,102	CH173437B	F-Water	G5	10/28/2003	CHESI - Chicago
IL10801165	X	00111	CHESI	5,710	CH173437B	F-Water	G5	10/29/2003	CHESI - Chicago
IL10801153	X	00116	CHESI	4,796	CH173437B	F-Water	G5	10/31/2003	CHESI - Chicago
IL10801154	X	00117	CHESI	4,890	CH173437B	F-Water	G5	10/31/2003	CHESI - Chicago
IL10801166	X	00118	CHESI	4,997	CH173437B	F-Water	G5	11/3/2003	CHESI - Chicago
IL10705498	X	00120	CHESI	4,997	CH173437B	F-Water	G5	11/4/2003	CHESI - Chicago
IL10705497	X	00122	CHESI	5,050	CH173437B	F-Water	G5	11/5/2003	CHESI - Chicago
IL10761855	X	00124	CHESI	4,787	CH173437B	F-Water	G5	11/7/2003	CHESI - Chicago
IL10801116	X	00125	CHESI	5,202	CH173437B	F-Water	G5	11/10/2003	CHESI - Chicago
IL10801117	X	00126	CHESI	5,750	CH173437B	F-Water	G5	11/10/2003	CHESI - Chicago
IL10801120	X	00128	CHESI	5,700	CH173437B	F-Water	G5	11/12/2003	CHESI - Chicago
			TOTAL	89,764					
IL10761843	X	00127	CHESI	5,525	CH213385B	Flam	S2	11/11/2003	CHESI - Chicago
IL10761844	X	00129	CHESI	5,431	CH213385B	Flam	S2/S4	11/12/2003	CHESI - Chicago
IL10705427	X	00132	CHESI	5,450	CH213385B	Flam	S4	11/19/2003	CHESI - Chicago
IL10801129	X	00134	CHESI	4,700	CH213385B	Flam	51	11/20/2003	CHESI - Chicago
IL10801131	X	00136	CHESI	4,759	CH213385B	Flam	S4/S5	11/21/2003	CHESI - Chicago
IL10801130	X	00137	CHESI	5,203	CH213385B	Flam		11/25/2003	CHESI - Chicago
IL10761854	X	00140	CHESI	5,553	CH213385B	Flam	S5/53	12/3/2003	CHESI - Chicago

Table 1. RRG/Clayton Chemical Site Liquids Group - Manifest Tracking Log

Manifest No.	Returned	Document No.	Transporter	Gallons	Profile No.	Waste Type	AST No.	Transport Date	Disposal Facility
			TOTAL	36,621					
IL10761857	X	00114	CHESI	3,841	CH173427B	Rec. Perc	#37	10/30/2003	CHESI - Chicago
IL10801113	X	00130	CHESI	5,800	CH173427B	Rec. Perc	S1	11/17/2003	CHESI - Chicago
IL10801132	X	00131	CHESI	4,305	CH173427B	Rec. Perc	37/33	11/18/2003	CHESI - Chicago
IL10801114	X	00133	CHESI	4,835	CH173427B	Rec. Perc	33/37/S1/46	11/19/2003	CHESI - Chicago
IL10801112	X	00139	CHESI	3,439	CH173427B	Rec. Perc	46/52	12/1/2003	CHESI - Chicago
			TOTAL	22,220					
IL10761853	X	00141	CHESI	5,202	CH173434B	Tank Bottoms	G9/G2	12/8/2003	CHESI - Chicago
IL10801148	X	00142	CHESI	5,000	CH173434B	Tank Bottoms	12-Nov	12/9/2003	CHESI - Chicago
IL10801147	X	00143	CHESI	5,181	CH173434B	Tank Bottoms	S5/11/9/12	12/10/2003	CHESI - Chicago
IL10801149	X	00144	CHESI	5,072	CH173434B	Tank Bottoms	R1	12/12/2003	CHESI - Chicago
IL10761850	X	00145	CHESI	5,202	CH173434B	Tank Bottoms	G9/11/12/13	12/15/2003	CHESI - Chicago
IL10761851	X	00146	CHESI	1,400	CH173434B	Tank Bottoms	R1/11/12/13	12/18/2003	CHESI - Chicago
IL1071852	X	00147	CHESI	5,026	CH173434B	Tank Bottoms	11/12/13/R1/G9	12/18/2003	CHESI - Chicago
IL10777664	X	00157	CHESI	1,807	CH173434B	Tank Bottoms		1/12/2004	CHESI - Chicago
			TOTAL	33,890					
IL10789856	X	00148	CHESI	390	CH173432	Drums	6	12/30/2003	CHESI - Chicago
IL10789848	X	00149	CHESI	385	CH173433	Drums	7	12/30/2003	CHESI - Chicago
IL10691154	X	00150	CHESI	242	Lab Pack	Drums	10	12/30/2003	CHESI - Chicago
IL10789851	X	00151	CHESI	575	CH213386	Drums	9	12/30/2003	CHESI - Chicago
IL10789849	X	00152	CHESI	470	CH213390	Drums	8	12/30/2003	CHESI - Chicago
IL10789854	X	00153	CHESI	330	CH173431	Drums	6	12/30/2003	CHESI - Chicago
IL10789857	X	00154	CHESI	715	CH173432	Drums	13	1/9/2004	CHESI - Chicago
IL10789859	X	00155	CHESI	1,155	CH173437B	Drums	21	1/9/2004	CHESI - Chicago
IL10789863	X	00156	CHESI	1,530	CH213390	Drums	25	1/9/2004	CHESI - Chicago
IL10801092	X	00158	CHESI	300	CH213389	Drums	6	1/14/2004	CHESI - Chicago
IL10801090	X	00159	CHESI	360	CH213396	Drums	6	1/14/2004	CHESI - Chicago
IL10801091	X	00160	CHESI	335	CH213388	Drums	7	1/14/2004	CHESI - Chicago
IL1080189	X	00161	CHESI	55	CH213390	Drums	1	1/14/2004	CHESI - Chicago

Table 1. RRG/Clayton Chemical Site Liquids Group - Manifest Tracking Log

Manifest No.	Returned	Document No.	Transporter	Gallons	Profile No.	Waste Type	AST No.	Transport Date	Disposal Facility
			TOTAL	6,842					
040066-0162	X	00162	CHESI	3,816	PQ-040401_009-C	Crude Oil	G-4	4/12/2004	Energis/Holcim
040066-0163	X	00163	CHESI	3,890	PQ-040401_009-C	Crude Oil	G-4	4/14/2004	Energis/Holcim
040066-0164	X	00164	CHESI	3,974	PQ-040401_009-C	Crude Oil	G-4	4/16/2004	Energis/Holcim
040066-0165	X	00165	CHESI	4,482	PQ-040401_009-C	Crude Oil	G-4	4/19/2004	Energis/Holcim
040066-0166	X	00166	CHESI	2,391	PQ-040401_009-C	Crude Oil	G-4	4/20/2004	Energis/Holcim
040066-0167	X	00167	CHESI	2,349	PQ-040401_009-C	Crude Oil	G-4	4/21/2004	Energis/Holcim
040066-0168	X	00168	CHESI	3,354	PQ-040401_009-C	Crude Oil	G-4	4/22/2004	Energis/Holcim
040066-0169	X	00169	CHESI	2,157	PQ-040401_009-C	Crude Oil	G-4	4/21/2004	Energis/Holcim
040066-0170	X	00170	CHESI	4,192	PQ-040401_009-C	Crude Oil	G-4	4/27/2004	Energis/Holcim
040066-0171	X	00171	CHESI	2,943	PQ-040401_009-C	Crude Oil	G-4	4/28/2004	Energis/Holcim
040066-0172	X	00172	CHESI	2,779	PQ-040401_009-C	Crude Oil	G-4	4/29/2004	Energis/Holcim
040066-0173	X	00173	CHESI	3,599	PQ-040401_009-C	Crude Oil	G-4	4/30/2004	Energis/Holcim
040066-0174	X	00174	CHESI	3,368	PQ-040401_009-C	Crude Oil	G-4	5/3/2004	Energis/Holcim
040066-0175	X	00175	CHESI	3,382	PQ-040401_009-C	Crude Oil	G-4	5/4/2004	Energis/Holcim
040066-0176	X	00176	CHESI	2,358	PQ-040401_009-C	Crude Oil	G-4	5/5/2004	Energis/Holcim
040066-0177	X	00177	CHESI	3,538	PQ-040401_009-C	Crude Oil	G-4	5/6/2004	Energis/Holcim
040066-0178	X	00178	CHESI	2,757	PQ-040401_009-C	Crude Oil	G-4	5/7/2004	Energis/Holcim
040066-0179	X	00179	CHESI	5,323	PQ-040401_009-C	Crude Oil	G-4	5/10/2004	Energis/Holcim
040066-0180	X	00180	CHESI	3,269	PQ-040401_009-C	Crude Oil	G-4	5/11/2004	Energis/Holcim
040066-0181		00181	CHESI	4,380	PQ-040401_009-C	Crude Oil	G-4	5/12/2004	Energis/Holcim
040066-0182		00182*	CHESI	2,284	PQ-040401_009-C	Crude Oil	G-4	5/14/2004	Energis/Holcim
			TOTAL	70,585					

804,043 Total AST Liquid Waste Volume

6,842 Total Drum Liquid Waste Volume

810,885 Total Liquid Waste Volume

CHESI = Clean Harbors Environmental Services, Inc.

Rec. Perc = Recovered perchloroethylene

F-Water = F-listed wastewater